

MUHAMMAD HAMMAD RAZA

BATCH # 10

ROLL: 512343

SMIT

MALIR CAMPUS, KARACHI

TASK 01

```
[2]  ✓ 27s      s = input("Enter a string: ")  
          count_letters = 0  
          count_digits = 0  
          count_special = 0  
          for ch in s:  
              if ch.isalpha():  
                  count_letters += 1  
              elif ch.isdigit():  
                  count_digits += 1  
              else:  
                  count_special += 1  
          print("Letters:", count_letters)  
          print("Digits:", count_digits)  
          print("Special characters:", count_special)  
  
          Enter a string: hammad123!@.raza  
          Letters: 10  
          Digits: 3  
          Special characters: 3
```

TASK 02

```
[3]  ✓ 26s      start = int(input("Start: "))  
          end = int(input("End: "))  
          found = []  
          for n in range(start, end + 1):  
              if (n % 4 == 0) != (n % 6 == 0):  
                  found.append(str(n))  
          print(", ".join(found))  
  
          Start: 10  
          End: 30  
          16, 18, 20, 28, 30
```

TASK 03

```
[4] ✓ 18s
s = input("Enter a sentence: ")
count_upper = 0
count_lower = 0
for ch in s:
    if ch.isupper():
        count_upper += 1
    elif ch.islower():
        count_lower += 1
print("Uppercase:", count_upper)
print("Lowercase:", count_lower)

Enter a sentence: My Name Is Muhammad Hammad Raza
Uppercase: 6
Lowercase: 20
```

TASK 04

```
[5] ✓ 11s
w = input("Enter a word: ")
out = ""
for ch in w:
    if ch.lower() in "aeiou":
        out += "*"
    else:
        out += ch
print(out)

Enter a word: Hammad
H*m*d
```

TASK 05

```
[6] ✓ 28s
s = input("Enter a string with letters and digits: ")
total = 0
for ch in s:
    if ch.isdigit():
        total += int(ch)
print("Sum of digits:", total)

Enter a string with letters and digits: ha23mm43d
Sum of digits: 12
```

TASK 06

```
[7] ✓ 56s
    sent = input("Enter a sentence: ")
    words = sent.split()
    count = 0
    for word in words:
        if word and word[0].lower() in "aeiou":
            count += 1
    print("Words starting with a vowel:", count)
```

```
Enter a sentence: Hammad is pursuing an Information Technology field
Words starting with a vowel: 3
```

TASK 07

```
[10] ✓ 4s
    start = int(input("Start: "))
    end = int(input("End: "))
    for n in range(start, end + 1):
        total = 0
        for d in str(n):
            total += int(d)
        if total % 2 == 0:
            print(n, end=" ")
```

```
Start: 10
End: 20
11 13 15 17 19 20
```

TASK 08

```
[15] ✓ 8s
    s = input("Enter a string: ")
    counts = {}
    for ch in s:
        counts[ch] = counts.get(ch, 0) + 1
    for ch in sorted(counts):
        print(f"{ch}: {counts[ch]}", end=", ")
```

```
Enter a string: muhammadhammadraza
a: 6, d: 2, h: 2, m: 5, r: 1, u: 1, z: 1,
```

TASK 09

```
[19]  
✓ 6s  
start = int(input("Start: "))  
end = int(input("End: "))  
for n in range(start, end + 1):  
    if "3" in str(n):  
        print(n, end=" ")  
  
Start: 1  
End: 40  
3 13 23 30 31 32 33 34 35 36 37 38 39
```

TASK 10

```
[22]  
✓ 4s  
start = int(input("Start: "))  
end = int(input("End: "))  
for n in range(start, end + 1):  
    total = 0  
    for d in str(n):  
        total += int(d)  
    if ((n % 4 == 0) or (n % 6 == 0)) and not (n % 4 == 0 and n % 6 == 0):  
        if total % 2 == 1 and n % 9 != 0:  
            print(n, end=" ")  
  
Start: 1  
End: 100  
16 30 32 52 56 76 78 92 100
```